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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,049	02/13/2002	Osamu Nabeta	M1971-107	8629

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EXAMINER

NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/076,049	Applicant(s) NABETA ET AL.	
	Examiner Janis L. Dote	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-11 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-11 and 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The examiner acknowledges the cancellation of claims 5 and 12, and the amendments to claims 1-4, 6-11, and 13-24 filed on May 3, 2004 (Amdt05032004). Claims 1-4, 6-11, and 13-24 are pending.

2. The rejections of claims 7, 14, 20, 22, and 24 under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Feb. 3, 2004 (CTNF020304), paragraph 7, have been withdrawn in response to the amendments to claims 7, 14, 20, 22, and 24 filed on May 3, 2004.

The rejection of claims 1-4 and 8-11 under 35 U.S.C. 103(a) over US 5,629,117 (Katsukawa) combined with US 6,528,645 B1 (Hamasaki), Diamond, Handbook of Imaging Materials, pages 395-396 (Diamond), and US 5,737,669 (Ring), set forth in CTNF020304, paragraph 9, has been withdrawn in response to the amendments to claims 1-4 and 8-11, wherein claims 1-4 and 8-11 now depend from claims 6 and 13, respectively. Claims 6 and 13 recite an imaging apparatus comprising an "endless flexible single layer positively charged organic photosensitive body . . . that is stretched with a tension of 50 N/cm per unit width of the photosensitive body . . . over a plurality of cylindrical rollers that include at least one cylindrical roller with an outer diameter of 5 mm phi or greater and 20 mm phi or less."

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None of the cited references teaches or suggests an imaging apparatus comprising an endless flexible single-layer photosensitive body stretched with a tension of "50 N/cm per unit width" of the photosensitive body over a plurality of cylindrical rollers as recited in instant claims 6 and 13.

The rejection of claims 1, 2, 5, 7, 8, 9, 12, and 14 under 35 U.S.C. 103(a) over US 6,198,889 B1 (Yu) combined with European Patent 574,154 A1 (EP'154) and Hamasaki, set forth in CTNF020304, paragraph 10, has been withdrawn in response to the cancellation of claims 5 and 12, and the amendments to claims 1, 2, 7, 8, 9, and 14, wherein the claims now depend from either claim 6 or claim 13. As discussed in the rejection in paragraph 10, Yu discloses an electrophotographic copying apparatus comprising an endless flexible electrophotographic photoreceptor belt 10 which is stretched over a plurality of cylindrical rollers 12, 14, 16, and 18, having a diameter of 1.9 cm (i.e., 19 mm), which is within the range of 5 mm to 20 mm recited in the instant claims. However, neither Yu nor the other cited references teach or suggest an imaging apparatus comprising an endless flexible single-layer photosensitive body stretched with a tension of "50 N/cm per unit width" of the photosensitive body over a plurality of cylindrical rollers as

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recited in instant claims 6 and 13. Nor is there enough information on the present record to determine whether the photosensitive belt disclosed by the prior art has a tension of "50 N/cm per unit width" of the belt when stretched over a plurality of rollers as recited in instant claims 6 and 13.

The rejections under 35 U.S.C. 103(a) of claims 1, 2, 8, 9, 15-18, 23, and 24 under 35 U.S.C. 103(a) over US 6,528,645 (Hamasaki) combined with Diamond and Ring, and of claims 19, 20, 21, and 22 over Hamasaki combined with Diamond, Ring, and Japanese Patent 2000-314970 (JP'970), set forth in CTNF020304, paragraphs 12 and 13, respectively, have been withdrawn in response to the amendments to claims 1, 2, 8, 9, 15-18, 23, and 24, wherein the claims now depend from either claim 6 or claim 13. None of the cited references teaches or suggests an imaging apparatus comprising an endless flexible single-layer photosensitive body stretched with a tension of "50 N/cm per unit width" of the photosensitive body over a plurality of cylindrical rollers as recited in instant claims 6 and 13.

3. The term "belt-type" recited in the instant claims is defined as "endless flexible" in the instant specification at page 3, line 11.

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4. The term "phi" recited in the instant claims refers to the symbol " ϕ ." See the instant specification at page 12, line 6.

5. The examiner notes that following term is a means-plus-function limitation covered by 35 U.S.C. 112, sixth paragraph: "means for electrophotography processing that are placed on the periphery of said photosensitive body" recited in instant claims 6 and 13. The specification at page 13, lines 3-5, recites "means for electrophotography processing, such as charging, light exposure, developing, transferring, cleaning, and the like." The only structure provided for such means is shown in instant Fig. 3. Fig. 3 comprises a charging device 35, a light exposure system 36, a developing system 37, a transfer system 39, a cleaning system 43, and a charge removal system 44. The specification further discloses that the transfer system comprises an intermediate transfer belt 40 and a transfer device 41. See the instant specification at page 31, lines 17-22, and Fig. 3. That structure, and equivalents thereof, define the literal scope of the "means for electrophotography processing . . ." recited in the instant claims.

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6. The following is a quotation of the second paragraph of 35

U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-4, 6-11, and 13-24 are rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 13 are indefinite in the phrase "photosensitive body stretched with a tension of 50 N/cm per unit width of the photosensitive body" because it is not clear what is meant by the phrase. It is not clear whether the phrase means that the body is stretched over the rollers with a tension of 50 N per cm of the width of the belt or that the body is stretched over the rollers with a tension of 50 N/cm per some unit of width, N/cm².

Applicants' arguments filed in Amdt050304 have been fully considered but they are not persuasive.

Applicants assert that the phrase "50 N/cm per unit width" is "definite." However, applicants have not clearly and conspicuously explain what the phrase means.

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8. The following is a quotation of the first paragraph of 35

U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-4, 6-11, and 13-24 are rejected under 35

U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Instant claims 6 and 13 recite an imaging apparatus comprising an "endless flexible single layer positively charged organic photosensitive body . . . that is stretched with a tension of 50 N/cm per unit width of the photosensitive body . . . over a plurality of cylindrical rollers that include at least one cylindrical roller with an outer diameter of 5 mm phi or greater and 20 mm phi or less."

The originally filed specification does not provide an adequate written description of the tension recited in the instant claims. The originally filed specification discloses

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that the "endless flexible single layer photosensitive body" is stretched with a "tension of 50 N/cm per unit length of the width of the photosensitive body" (emphasis added) over a plurality of cylindrical rollers. Originally filed specification, page 9, line 18, page 12, line 4-5, and page 13, line 12-13. The originally filed specification does not disclose a tension of "50 N/cm per unit width" as recited in instant claims 6 and 13. Applicants have not indicated where in the originally filed specification there is antecedent basis for the tension now recited in the instant claims.

10. Claims 1 and 8 are objected to because of the following informalities:

The typographic error using the symbol " Θ " to denote scattering angle should be changed to the symbol " θ ". See the instant specification, page 16, line 10, to page 17, line 4.

Appropriate correction is required.

11. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD

Jul. 13, 2004

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PRIMARY EXAMINER
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1700